

## Narrative

SITE NAME: City of Wausau Water Department (Water Supply)  
River Drive  
Wausau, WI 54401

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EPA Region 5 Records Ctr.



225465

## SITE HISTORY AND DESCRIPTION:

In the spring of 1982, tests of City of Wausau water supply revealed that there was significant volatile organic chemical contamination (VOC). Specifically, 1,2-Dichloroethylene (DCE), trichloroethylene (TCE), tetrachloroethylene (PCE) and toluene were found in the water. City, State and EPA testing done since 1982 has confirmed this problem (results enclosed).

In mid 1982 the City of Wausau was informed by the State Department of Natural Resources that they would have to take measures to reduce the VOC in their water supply. The City initially sampled the ten wells they have for water supply; seven are actually supplying water. Sampling determined that well numbers 3, 4, and 6 were highly contaminated with VOCs. The levels were above the EPA health advisory guidelines.

To correct the VOC problem, the City cut back uses of the contaminated wells and, in fact, shut down the most contaminated well, well number 4. Wausau also hired a consultant to look into the possible sources of well contamination. The consultant, Becher-Hoppe began their search for possible sources of contamination by inventorying industries in the area as well as drilling seven shallow monitoring wells around contaminated wells 3 and 4, which are both on the east side of the Wisconsin River. Well number 6 is on the west side (see attached map for location).

The study conducted by the consultant did locate other areas of VOC contamination and did identify some industries that potentially could be sources of contamination. The study was not able to supply an answer to the cities VOC problem. In the meantime, the City was having to use wells 3 and 6, which again increased the VOC content of the Wausau water supply. The VOC content fluctuated in 1982 and 1983 quarterly sampling indicate the VOCs were still a problem in the city water.

The Department of Natural Resources (DNR) was working concurrently with the City to identify sources of VOC contamination. Some of the same industries the City's consultant came up with were also identified by the DNR. Specifically, Wausau Chemicals, a chemical storage and distribution facility located near wells 3 and 4 (see map) and is one of the likely sources. On December 9, 1983, Wausau Chemical had a 900 gallon spill of tetra-chloroethylene, one of the compounds found in the wells. The contaminated soil has since been removed and disposed in a hazardous waste disposal site. It is apparent, however, that Wausau Chemicals are not the only source since well 6 on the west side of the Wisconsin River is contaminated and other monitoring and private wells in the area of well numbers 3 and 4 are contaminated. These wells may not be influenced by Wausau Chemicals' activities.

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Presently, the City water supply still has VOC problems, however, treatment systems have been installed. Further source ID work has located a number of old dump sites in the area of wells 3, 4 and 6. An EPA contractor has drilled a deep monitoring well near well number 6 which will hopefully identify the direction of contaminant movement to well number 6. Geophysical work to determine bedrock contours is also being completed. Well number 6 water is being treated by a carbon filtration system. Well number 3 production is cut back and well number 4 is shut down. The city also recently installed a VOC treatment tower at the water plant. This presently is providing the City of Wausau with an adequate water supply that is low in VOCs.

COMMENTS: Treatment and cutback of water production from the contaminated wells is a temporary solution to Wausau's problem. A dry spell could force a water shortage or necessitate the use of the contaminated wells. The City must locate and identify sources of contamination and find alternate clean water supplies to supply needs for the future.

The problem here is the location of the sources of contamination and the study via monitoring wells and soil borings to identify the extent of the problem.

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